

Report on Visit to Dorset County Council by Cllr's Hastings and Hobart



On Friday 7th December Cllr's Hastings and Hobart travelled to Dorset to meet with Dr. Phillip Sterling and Giles Nicholson, the Green Team Manager.

Dr. Sterling is now working with Butterfly Conservation but was previously the officer in charge of the Green Team that maintains the grass verges in the County of Dorset. Giles Nicholson heads up a team of some 60 members responsible for the day-to-day maintenance of grass verges and rights of way, some of which are apprentices. We also met with Ken Buckin who is now the officer responsible for the Coast and Country Parks.

Dorset have been very successful at both reducing their numbers of cuts per year to 2 from 7 and creating a better biodiversity with a wide variety of wild flowers that stay green and colorful even in very dry summers as witnessed this year. This means they remain green and full of flowers instead of dying off and going brown and boring as happened previously. This has also won over the public, as vast areas of verges are more colorful and visited by many more wildlife species some of which are recognised as Dorset specialties.

How they have achieved this is by two main principles;

1. Reducing the fertility of the soil
2. Cut and collect mowing method.



How the grass verge ecosystem works

The need to cut verges is linked to the underlying fertility of the soils in which the grass grows. With the squeeze on public finance we have much less money available to satisfy this demand, and with milder autumns and springs leading to extended growing seasons, there is greater public pressure on us to cut more rather than less often.

In Dorset they are taking a different approach to these problems, and they start from the principle that if they can reduce the amount that grass grows in the first place, they will have less to cut, and this should cost them less. They look on a grass verge as an ecosystem to understand what makes grass grow and how we might put measures in place to limit that growth, while improving its environmental quality.

Of the 4 main components of the ecosystem that make grass grow – light, water, temperature and soil nutrients – it is only the fourth, soil nutrients, over which we have some control.

The new approach to verge maintenance provides the means to reduce the nutrients available to make the grass grow less, so they can change from a system where they 'cut when they need to' to one where they 'reduce the amount they ever have to cut in the first place'. Soil nutrients largely come from the intrinsic 'goodness' in the soil (based on its geology), natural breakdown of grass they cut and leave behind (nutrients get recycled when the cut grass rots down), and dissolved nutrients in rainfall.

There are two main ways we can reduce soil fertility:

- On existing road verges, where possible, you can collect the grass cuttings and remove them, gradually reducing the amount of nutrient which fuels

grass growth. You can also add plant species such as Yellow Rattle, which naturally parasitises grasses by sucking the life out of grass roots, reducing the amount the grass grows.

- When designing a new road scheme, or as part of works to existing roads, make sure the finishing layer of soil is as low nutrient as possible - or leave it as bare mineral - and add some wildflower seed. The ecosystem established will never require high levels of maintenance.

Yellow Rattle



THE BENEFITS

Cost savings

Is the new approach saving any money? Yes, it is.

Through a combination of reviewing contract spend, their targeted efforts to reduce soil fertility, and working with communities to create wildflower verges, they have saved c. £100k in 2015/16 and 2016/17 and are confident about achieving a further saving of c. £50k in 2017-18. There are also hidden dividends from this approach as they are able to redeploy their in-house teams to other highway tasks such as maintaining Rights of Way.

Improved environment

As soil nutrients decrease in a grassland ecosystem, the number of plant species that can survive increases, and the dominance of coarse grasses and 'weeds' like docks, ragwort and thistles declines. So, the benefit of this approach is also that it produces a more diverse roadside environment for wildlife and adds to the biodiversity of the area.

The most extensive example in Dorset is the creation of 6ha of wildflower verges as part of construction of the Weymouth Relief Road. No topsoil was applied to the steep banks in the road cuttings and since the road opened in 2011 there has been a profusion of wildflowers all summer. 23 species of butterfly have been recorded on the banks, including two Dorset specialties, Small Blue and Adonis Blue, together with an abundance of the Marbled White. It is currently costing DCC almost nothing to maintain the 6ha of banks – the long-term maintenance liability was deliberately designed out to create the wildflower banks they now enjoy. Between 2017 and 2019 they are planning to extend the ecological approach to the remainder of the verges on the Relief Road, and to encourage wildflower verges throughout.

Reduced maintenance

The verges of the Blandford Bypass are a good example of how to reduce the amount of maintenance they do through the cut-and-collect approach. These verges, created in 1992, used to be cut at least twice a year. The combination of cut-and-collect, and abundance of Yellow Rattle established following its sowing, now means we need only cut this verge once a year, saving us money. The verges have now been recognised as a Site of Nature Conservation Importance by the Dorset Wildlife Trust, and the grassland supports a beautiful showing of Pyramidal Orchids in summer along with abundant Ox-eye Daisy and Knapweeds.

Working with local communities we have been identifying wide verges in urban areas where, for no other reason than tidiness, we have until now been cutting the grass 7 or more times a year. Under our new approach, areas are treated in the

winter or early spring to remove the grass and seeded with an annual or perennial wildflower mix, depending on soil fertility. After the flowering season has finished in late autumn, the area is cut and arising's collected, which helps to reduce soil fertility and increase the diversity of flowers in the following years. Normally the local community has offered to buy the seed and we have then committed to looking after the area. Where these wildflower verges have been established they have proved to be very popular.



Dorset's Conservation Verges

DCC has a long-established partnership with the Dorset Wildlife Trust to maintain a suite of roadside verges, which are particularly important for wildflowers. Currently there are over 120 spread across the county, marked at either end with Blue Posts. The Conservation Verge scheme continues, but we have made significant modifications intended to improve the management of these verges for their wildlife value. Their in-house staff, rather than contractors will cut the Conservation Verges, so that they have direct control of when they are cut. Each verge has a management statement produced by DWT to indicate when from the wildlife viewpoint it would be best to cut, but almost invariably in previous years the contractor has cut too late. Once they have cut the verges they would also like to work with volunteers in the most suitable areas to help rake the cuttings away from the verges into the hedge so that they reduce soil fertility over time, and remove the deep grass thatch, which prevents the wildflowers from germinating and thriving.

The Weymouth Relief Road slopes below Ridgeway

